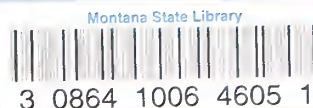


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FLOODPLAIN MANAGEMENT SECTION

449-2864

Volume 6

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HOW TO LESSEN FLOOD HAZARDS

Flooding threatens health and safety, and results in high costs for road repair, bridges, fences, building damage, debris cleanup, utility repairs, and rescue work. The costs of floods concern all taxpayers as well as the property owners directly affected. Floodplain management programs recognize this and plan for the event when a stream carries more than its normal flow of water.

Several adjustments can be undertaken by inhabitants or communities in floodplains to mitigate flood losses. Chief among these are: (1) flood protection, (2) disaster relief, (3) adequate insurance, (4) land-use regulations and changes, (5) removal of hazards, and (6) flood proofing. Before 1968 the national policy for mitigating flood losses consisted of structural flood protection measures.

FLOOD PROTECTION

Since 1936 over \$15 billion has been spent for the construction of **flood protection** projects. However, this enormous construction program has not reduced flood damage potential nationally.

DISASTER RELIEF AND INSURANCE

Flood **disaster relief** has been an expensive burden borne by the taxpayers. Over \$3 billion is now spent annually on relief to disaster victims, but with the inception of the National Flood Insurance Program (NFIP) money is being put back into this relief fund as flood insurance premiums. At present, **flood insurance** is heavily subsidized by the federal government and represents a considerable government expenditure over and beyond premium income. Flood insurance purchased by the individual home owners can protect them from financial disaster due to flooding.

REGULATION ON FLOODPLAINS

Land-use, building codes and **zoning regulations** are an important, cost-effective means of mitigating flood losses.

HAZARD REMOVAL

The **Hazard Removal** program of the Federal Emergency Management Agency (FEMA) provides for removing individual residences from high flood hazard areas. Removal programs such as this have worked in other parts of the country but communities in Montana generally don't have the financial resources to make them practical. To qualify, the structure must be substantially damaged (greater than 50% of its value) and protected by flood insurance—the assistance is available only following a major disaster. There must be an agreement with the property owner; the local government then accepts title to the property and agrees to maintain it as open space.

FLOOD PROOFING

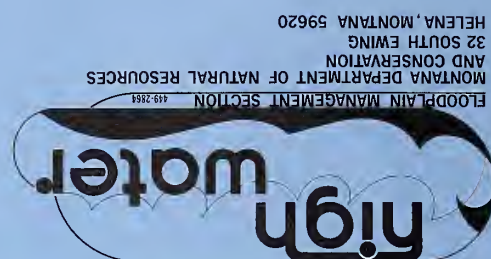
Flood proofing is any adjustment to structures and contents designed or adapted primarily to reduce flood damages. A flood-proofing program consists of various measures that can be used to render buildings, contents, and grounds less vulnerable to flood damage. We will discuss flood-proofing techniques in future issues of High Water.

EMERGENCY PHASE COMMUNITIES

Those communities in the emergency phase that were identified in the June issue (#3) of High Water need to enforce their floodplain management regulations. Tim or John will be visiting your community beginning in October. We will be assisting you in your efforts to meet the requirements of the National Flood Insurance Program. Regular phase communities need to enforce their regulations, too! The program won't work without your help.

TALK TO EACH OTHER

Now that all of the communities of Montana that are enrolled in NFIP have been identified, maybe you, as the floodplain manager of one of those communities, can help another community with its program. Maybe you have an innovative enforcement procedure that you would like to share or maybe you would like to talk with someone who has problems similar to yours. The Floodplain Management Section has a listing of all the local Floodplain Administrators available upon request.



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PERMIT PROCESS

Communities in the Emergency Phase of the National Flood Insurance Program (NFIP) need to take a good look at any property that has been proposed for development to see whether or not it's in the floodplain.

No alteration can be made in the land or any structure built without full compliance with the terms of the adopted ordinance and other zoning or building codes regulations.

Encroachments into the floodplain by land filling, railroads, highways, channel modification, and other developments may constrict the flow of floodwater. These channel changes generally increase floodwater depths and velocities within the remaining floodplain.

A Floodplain Development Permit must be obtained from the local Floodplain Administrator BEFORE construction or development begins within any area with an identified flood hazard.

The permit application may include plans drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of these installations. The following information is required: elevation (in relation to the mean sea level) of the lowest floor (including basement) of all structures; elevation to which any structure has been flood-proofed; certification by a registered professional engineer or architect that the flood-proofing methods for any nonresidential structure meet the flood-proofing criteria; and description of the extent to which any watercourse will be altered as a result of proposed development.

When a Floodplain Development Permit Application is received there are a few things the floodplain manager must check for compliance in order to continue the community's eligibility in the NFIP. These are: (1) review all permits to determine that they meet the requirements of your ordinance; (2) inform applicant that other permits may be required such as Section 404 permit from the Corps of Engineers or 310 permit from local conservation districts; (3) determine if the proposed development will adversely affect the flood-carrying capacity of the watercourse and its floodplain, that is, direct waters so it will flood where it had never flooded before or will flood more severely.

GRANTING THE PERMIT

If the proposed development meets all of the requirements without adverse effects, the permit may be granted.

However, if it has been determined that there will be adverse effects, more information may be required or additional conditions must be applied to the permit before issuance. You have the authority to request more information and impose certain conditions.

If you need assistance in determining whether a permit should be granted or not, contact John Hamill or Tim Pool at the DNRC Floodplain Management Section, 449-2864.

DETERMINING FLOODPLAIN BOUNDARIES (Emergency Phase Communities)

Use the Flood Hazard Boundary Map (FHBM) to determine whether a proposed development is in a special flood hazard area or not. Use the most reliable information available to assist you to interpret the maps. Other maps produced by the SCS or USGS are sometimes available, such as Flood Prone Quad Maps.

If your community has photographs of past floods, you can get a good idea of how high flood waters reached in those areas. Newspaper articles sometimes describe how deep the water was in relation to a building or street. Use this information to assist you in determining if a structure should be elevated or moved from a proposed development site.

DEVELOPING FLOOD PLANS

In response to our request for information the Section has received two flood plans. Paul Spengler, Lewis and Clark County Floodplain Administrator/Disaster and Emergency Services Coordinator, and Carl King, Blaine County Disaster and Emergency Services Coordinator, have developed flood plans for their respective counties. Paul's plan gives a short history of flooding in Lewis and Clark County and then actually goes through the disaster response process—warning, direction and control, communication, mitigation, evacuation, shelters, and public information.

Carl developed two guidance plans that could be used for any county. A Planning Guidance paper highlights seven elements that should be considered in developing flood plans, including: warning, evacuation and rescue, damage reduction, recovery, public information, plan implementations, and plan maintenance. It identifies the objectives and tasks for each element.

The second paper, the outline for the Development of a Flood Plain Management Plan, is informative and enlightening. It offers many suggestions on what needs to be considered when developing a flood plan.

If your community would like assistance in developing a flood disaster plan contact the DES Coordinator in your county or the Floodplain Management Section.

STILL TO COME

The Floodplain Management Bibliography that we wrote about in the April issue of High Water is now ready for distribution.